



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,254	10/02/2003	Manuvir Das	3382-65960	4134
26119 7590 02/18/2009 KLARQUIST SPARKMAN LLP 121 S.W. SALMON STREET SUITE 1600 PORTLAND, OR 97204			EXAMINER KISS, ERIC B	
			ART UNIT 2192	PAPER NUMBER
			MAIL DATE 02/18/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/679,254

Applicant(s)

DAS ET AL.

Examiner

ERIC B. KISS

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 14, 15, 21, 24, 27-32, 34, 41-46 and 53-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 14, 15, 21, 24, 27-32, 34, 41-46 and 53-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The reply filed November 24, 2008, has been received and entered. Claims 7, 14, 15, 21, 24, 27-32, 34, 41-46, and 53-61 are pending.

Response to Arguments

2. Applicant's arguments, see pp. 9-15, filed November 24, 2008, with respect to the rejection of claims 7, 14, 15, 21, 24, 27-32, 34, 41-46, 56, 57, and 61 under 35 U.S.C. § 102(a) have been fully considered and are persuasive. The rejection of claims 7, 14, 15, 21, 24, 27-32, 34, 41-46, 56, 57, and 61 under 35 U.S.C. § 102(a) has been withdrawn.
3. Regarding claim 53, the examiner maintains that the Splint manual discloses, in the annotation context through the use of the alt annotation, overriding the type checking by adding alternative types, which incorporates the type checking associated with the newly added types (in the examples on p. 57, overriding the type checking associated with integers with that associated with integers OR floating point values). As applicants acknowledge, the alt operator of Splint does not change the actual variable from one type to another, but rather overrides the type checking (see, e.g., Remarks p. 13). Because the usability properties are only affected in the resulting Splint analysis (i.e., annotation-based static checking) and not changed in the program, the alt annotations may be fairly said to override the first set of values "only in an annotation context". Therefore, the rejection of claims 53-55 and 58-60 under § 102(a) is maintained.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 7, 14, 15, 21, 24, 27-32, 34, 41-46, and 53-61 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. § 101. To be statutory, a claimed process must either: (1) be tied to a particular machine or apparatus, or (2) transform a particular article into a different state or thing. *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc).

If the limitations tying the process to a computer are not actually limiting, *i.e.*, they do not reduce the preemptive footprint of the claim, then the process is not sufficiently tied to a particular machine or apparatus to be statutory. *Id.* at 955 (citing *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)). Mere field-of-use limitations are generally insufficient to render an otherwise ineligible process claim patent-eligible. *Id.* at 957 (citing *Diamond v. Diehr*, 450 U.S. 175, 191-192 (1981)). Nor will insignificant extrasolution activity render such a process statutory. *Id.* (citing *Diehr*, 450 U.S. at 191-92; *In re Schrader*, 22 F.3d 290, 294 (Fed. Cir. 1994)).

Regarding transformation of data, the en banc panel in *Bilski* noted that an algorithm (an unpatentable fundamental principle) merely combined with a data-gathering step was non-statutory because, “A requirement simply that data inputs be gathered—without specifying how—is a meaningless limit on a claim to an algorithm because every algorithm inherently requires the gathering of data inputs,” and, “Further, the inherent step of gathering data can also fairly be characterized as insignificant extra-solution activity.” *Id.* at 963 (citing *Parker v. Flook*, 437 U.S. 584, 590 (1978)). Further, transformations of abstractions do not meet the test for transformation of an article to a different state or thing because, “[Such abstractions] are not

physical objects or substances, and they are not representative of physical objects or substances.”
Id. at 963-64.

For a claimed process to be patent-eligible, the use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope, and the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity. *Id.* at 961-62.

Nominal recitations of structure in an otherwise ineligible method fail to make the method a statutory process. *See Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972). As Corniskey recognized, “the mere use of the machine to collect data necessary for application of the mental process may not make the claim patentable subject matter.” *In re Comiskey*, 499 F.3d 1365, 1380 (Fed. Cir. 2007) (citing *In re Grams*, 888 F.2d 835, 839-40 (Fed. Cir. 1989)). Incidental physical limitations, such as data gathering, field of use limitations, and post-solution activity are not enough to convert an abstract idea into a statutory process. In other words, nominal or token recitations of structure in a method claim do not convert an otherwise ineligible claim into an eligible one. To permit such a practice would exalt form over substance and permit claim drafters to file the sort of process claims not contemplated by the case law. *Cf. Parker v. Flook*, 437 U.S. 584, 593 (1978) (rejecting the respondent's assumption that “if a process application implements a principle in some specific fashion, it automatically falls within the patentable subject matter of § 101,” because allowing such a result “would make the determination of patentable subject matter depend simply on the draftsman's art and would ill serve the principles underlying the prohibition against patents for ‘ideas’ or phenomena of nature.”).

Claims 7, 14, 15, 21, 24, 27-32, 34, 41-46, 56, 57, and 61 are directed to methods for annotating source code, where the individual steps are not tied to a particular machine, nor do they transform any article to a different state or thing. The only recitation of a machine in the claims is in the preamble, where the method is recited as being, "In a computer system", and the source code is "stored on a computer-readable medium". With regard to the recitation of "In a computer system," this recitation is so generic as to encompass any computing system, such that anyone who performed this method in practice would fall within the scope of these claims. Thus, the recitation of a computer apparatus in the preamble is not, in fact, a limitation at all to the scope of the claim, and the claim is directed, in essence, to the method performed by any means. With regard to the recitation of the program code being stored on a computer readable medium, this appears to either be a mere field of use limitation or represents insignificant extrasolution activity.

Claims 53-55 and 58-60 recite methods for generically processing annotated source code that is stored on a computer-readable medium. The mere fact that the source code is stored on a "computer-readable" medium does not imply that the steps of the claim are being carried out by any particular machine. Additionally, the individual steps of reading, processing, and outputting are not themselves recited as being on any particular machine and are so generic as to encompass a series of mental steps.

6. To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. §101 (non-statutory) above are further rejected as set forth below in anticipation of Applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 53-55 and 58-60 are rejected under 35 U.S.C. 102(a) as being anticipated by Evans et al., "Splint Manual, Version 3.1.1-1," June 5, 2003 (prior art of record; hereinafter "[Splint]").

Regarding claim 53, [Splint] discloses:

reading at least one annotation having an argument from the annotated computer program code, wherein the at least one annotation annotates a value having a first declared value type with a first set of usability properties used only in an annotation context, and wherein the annotation overrides the first set of usability properties used only in the annotation context of the first declared value type and indicates a second set of usability properties used only in the annotation context for the value that depend on the second value type denoted by the argument of the annotation such that the second set of usability properties are used in the context of a second annotation rather than the first set of usability properties (see, e.g., pp. 24 and 57, describing the alt annotation; the alt annotation overrides the type checking by adding alternative types, which incorporates the type checking associated with the newly added types);

processing the annotated computer program code based at least in part on the second set of usability properties for the value (see, e.g., pp. 24 and 57, describing uses of the alt annotation); and

outputting a result of the processing (the outputting of results is disclosed throughout the Splint manual (see, e.g., pp. 11-12), and various descriptions of warning message handling is found on pp. 24 and 57).

Regarding claim 54, [Splint] further discloses the second value type is a null-terminated string type (see, e.g., p. 49, showing the annotated strncpy as returning void or alternatively a character buffer).

Regarding claim 55, [Splint] further discloses the processing comprises determining whether the value satisfies the second set of usability properties (see, e.g., pp. 24 and 57, describing the functionality of the alt annotation).

Regarding claim 58, [Splint] further discloses if the first value is a pointer, the second set of usability properties comprising the pointer pointing to a buffer with at least one readable element (see, e.g., p. 48 (MaxRead(ptr)>=0)).

Regarding claim 59, [Splint] further discloses if the first value is a scalar, the second set of usability properties comprises the scalar being initialized (see, e.g., section 3, beginning on p. 17).

Regarding claim 60, [Splint] further discloses if the first value is a struct, the second set of usability properties comprises each field of the struct being initialized (see, e.g., section 3, beginning on p. 17).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The

examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The examiner can also be reached on alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric B. Kiss/
Eric B. Kiss
Primary Examiner, Art Unit 2192